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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/384,926	08/26/1999	FRANK D. D'AMELIO	CIR-990826	8498

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EXAMINER	
LEE, Y YOUNG	
ART UNIT	**PAPER NUMBER**
2621	
MAIL DATE	**DELIVERY MODE**
05/21/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/384,926	D'AMELIO ET AL.	
	Examiner	Art Unit	
	Y. Lee	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 February 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,16-18,20-22,24-26 and 35-102* is/are pending in the application.

4a) Of the above claim(s) *24-26 and 35-102* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,16-18 and 20-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/16/07 has been entered.

Election/Restrictions

2. Claims 24-26 and 35-102 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 9, dated 12/9/03.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-3, 16, 17, and 20-22 are rejected under 35 U.S.C. 102(a) as being anticipated by Applicant's admitted prior art (AAPA) for the same reasons as set forth in Section 8 of the previous office action, paper number 10, dated 1/21/04.

5. Claims 1, 20, and 22 are also rejected under 35 U.S.C. 102(e) as being anticipated by Buchin (5,589,874).

Buchin, in Figures 1-3, disclose a video imaging system with external area processing optimized for small-diameter endoscopes that is the same apparatus for compensating differential picture brightness as to an optical image of a target site due to uneven illumination of the target site from an endoscope as specified in claims 1, 20, and 22 of the present invention, the optical image being imaged onto a video camera 34 so as to produce a video signal representing the optical image, the apparatus comprising a compensating device 38 for generating a compensating signal substantially representing at least one parameter of a compensating waveform, the compensating waveform being determined based on the uneven illumination of the target site from the endoscope 10; and a logic device 153 operatively coupled to the compensating device and the video signal for adding the compensating signal and the video signal to produce an output video signal, the output video signal 50 having its gain compensated so as to represent an optical image 52 of the target site were the target site to have a substantially uniform illumination from the endoscope 10.

With respect to claims 20 and 22, Buchin also discloses a control device 187 operatively coupled to the adding means to increase the brightness of the compensating video signal to a level which is greater than the average of the differential picture

brightness (e.g. luminance and/or hue) as to the optical image due to the uneven illumination from the endoscope 10.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art (AAPA) in view of Topper et al (5,157,497) for the same reasons as set forth in Section 11 of the previous office action, paper number 10, dated 1/21/04.

9. Claims 2, 3, 16, 17, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buchin in view of Flagle (3,654,385).

Although Buchin discloses a compensating device, it is noted Buchin differs from the present invention in that it fails to particularly disclose the types of waveform being generated as specified in claims 2, 3, 16, 17, and 21. Flagle however, in Figure 2, teaches the concept of such well known sawtooth waveform device for generating a sawtooth waveform having a predetermined rising slope, a predetermined failing slope and a controlled amplitude; and a parabolic waveform device for generating a parabolic waveform having a controlled amplitude and orientation; wherein the logic device includes an adder 40 operatively coupled to the sawtooth waveform device, the parabolic waveform device and the video signal so as to add the sawtooth waveform, the parabolic waveform and the video signal to produce the output video signal by increasing the gain of the video signal representing that part of the optical image which is less bright relative to a reference and reducing the gain of the video signal representing that part of the optical image which is brighter relative to a reference and wherein the video signal representing an optical imago having a substantially uniform brightness.

10. Claim 18 is also rejected under 35 U.S.C. 103(a) as being unpatentable over Buchin in view of Flagle as applied to claim 16 above, and further in view of Topper et al (5,157,497).

It is noted both Buchin and Flagle differ from the present invention in that they fail to particularly disclose an amplifier as specified in claim 18. Topper et al however, in Figures 1 and 2, teaches the concept of such well known video driver amplifier 200

operatively coupled to the adder 50 the output video signal to a video camera 500 through a low impedance.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, having all three of the references of Buchin, Flagle, and Topper et al before him/her, to modify the analog system of Buchin in view of Flagle to be upgraded as a digital apparatus by simply utilizing an A/D converter to convert the camera output to include the same digital camera means and competitive processing equipment. With an upgraded digital system, one of ordinary skill in the art would have had no difficulty in applying subsequent digital processing such as storing and retrieving the digitized images from the storage device 177 by the controller, as illustrated in Figure 3 of Buchin, since digital processing are necessary and well known techniques for any digital system.

Double Patenting

11. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

12. Claims 1-3, 16-18, and 20-22 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 2 of U.S. Patent No. 6,100,920 for the same reasons as set forth in Section 13 of the previous office action, paper number 10, dated 1/21/04

Response to Arguments

13. Applicant's arguments filed 2/16/07 have been fully considered but they are not persuasive. Applicant asserts on page 19-20 of the Remarks that the obvious double patenting rejection fails to provide any particulars. However, it is noted that the claims in the application are broader than the ones in the patent. One of ordinary skill in the art would have had no difficulty in recognizing that each and every claimed element of the current application are more claimed in more detail in the patent. For examples, compensating device was specified as compensating apparatus in claim 1; and logic device was specified as adder in the patent.

Applicant also asserts on pages 22-23 of the Remarks that AAPA fails to disclose video compensation. However, p. 5-6 of AAPA explicitly discloses several common methods to correct the uneven illumination problems in endoscope videos.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Y. Lee whose telephone number is (571) 272-7334. The examiner can normally be reached on (571) 272-7334.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (571) 272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Y. Lee
Primary Examiner
Art Unit 2621

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